MISSOURI DEPARTMENT OF NATURAL RESOURCES
March 2015
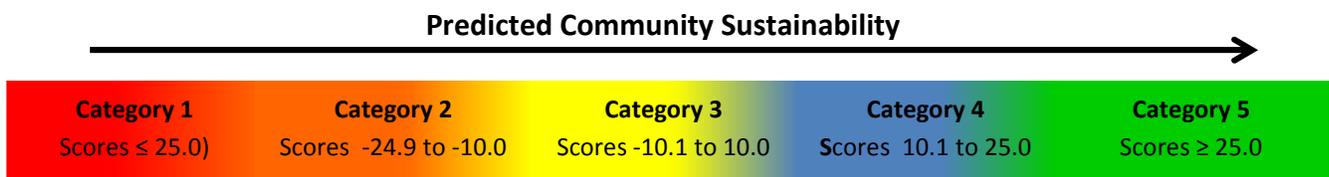
RURAL POPULATION SUSTAINABILITY ASSESSMENT TOOL

Missouri's Rural Population Sustainability Assessment Tool was developed for the Missouri Department of Natural Resources by Wichita State University's Environmental Finance Center (EFC). Wichita State University's EFC is one of 8 university-based centers across the nation funded by a U.S. Environmental Protection agency grant to promote development of financially and environmentally sustainable communities.

The Rural Population Sustainability Assessment Tool uses census data to calculate the potential for growth and sustainability in communities by assigning a weight to various statistics for each community. Key demographic and economic factors, which research has shown predict future changes in rural population growth and decline, are weighted to produce an overall rating of a community's growth potential, or sustainability score. The tool includes data for 745 communities in Missouri and was designed to focus on rural communities.

This tool will provide the Department with information that will help identify communities that may be good candidates for assistance, including financial, technical, managerial assistance or regulatory relief measures. The type of assistance provided and recommendations made to the community will be based on the community's potential for sustainability along with other factors, including a community's economic state and health and environmental impacts.

Using the tool, an overall score is generated for each community. Higher scores indicate greater predicted sustainability. Five categories were designated within the range of scores indicating the level of predicted future sustainability. Use of these categories will enable tool output to be used in planning and prioritizing Department assistance.

Predicted Community Sustainability

Category 1	Category 2	Category 3	Category 4	Category 5
Scores ≤ 25.0)	Scores -24.9 to -10.0	Scores -10.1 to 10.0	Scores 10.1 to 25.0	Scores ≥ 25.0

For more information, contact the Missouri Department of Natural Resources' Community Service Coordinator at (573) 751-1080 or visit www.dnr.mo.gov/assistance.

Missouri Rural Community Sustainability Assessment
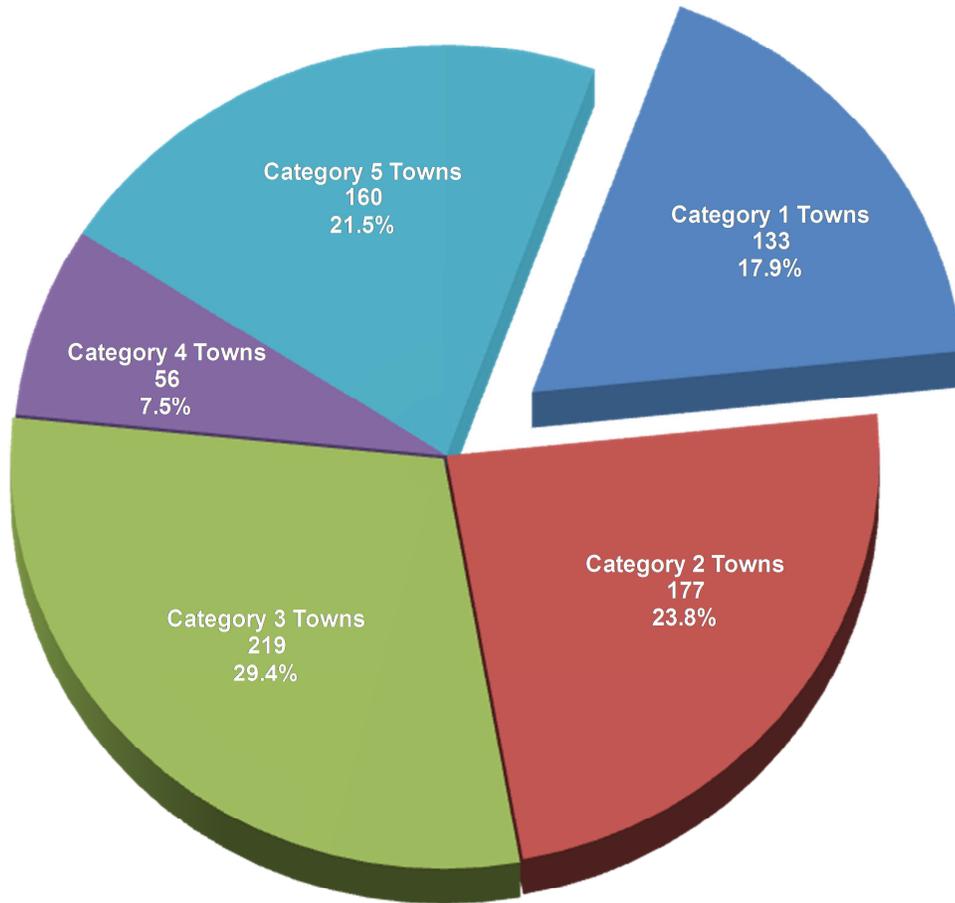
Community Category Summary

January 2015

In an effort to reduce the complexity of evaluating the large number of rural Missouri towns and to provide a global summary of rural sustainability, the Environmental Finance Center at Wichita State University has defined a series of categories based on a division of the overall scores generated in the Sustainability Assessment Tool. For the purposes of this document, "rural sustainability" refers to the capacity of a community to meet the needs of its citizens into the future. The categorical groups were developed from the range of overall scores across all rural towns. The range covers 1,191 score points (-245 to 946). Five categories were selected to give sufficient differentiation while maintaining a manageable number of groups. Towns were assigned to a category according to their overall assessment score. The sustainability categories are:

Category Name	Score Range	Number of Towns
Category 1 Towns	Towns with scores less or equal to -25.0	133
Category 2 Towns	Towns with scores from -24.9 through -10.0	177
Category 3 Towns	Towns with scores from -10.1 through 10.0	219
Category 4 Towns	Towns with scores from 10.1 through 25.0	56
Category 5 Towns	Towns with scores greater than 25.0	160

The logic in defining these categories centered on the predicted likelihood that a town can be sustained over time and its rate of decline. Towns with large negative scores face more challenging circumstances (Categories 1 and 2) over time and are declining at a faster rate than other rural towns. These towns show declines in many factors over time. Towns with scores of -10 through 10 face fewer challenges (Category 3) as they fall around a zero score. A zero overall score indicates that the factors predict no impact collectively that a town will decline or improve in sustainability over time. Future changes in only a few factors could cause these towns to trend in either direction. Towns with assessment scores above ten can likely remain sustainable (Categories 4 and 5) although at varying rates.

These categories although defined based on the criteria above can be modified if MDNR chooses to do so. If different scores ranges would be more meaningful to MDNR for assessment purposes, the ranges can be adjusted. The purpose in developing a categorical scheme is to reduce the complexity inherent in a large number of towns and to provide a global summary of the sustainability of all rural Missouri towns. The two tables on the following pages show the summary of the population sustainability categories and individual rural towns grouped in alphabetical order within each category.

Rural Missouri Towns
Number & Percent by Population Sustainability Category
N-745

Category 5 Towns
160
21.5%

Category 1 Towns
133
17.9%

Category 4 Towns
56
7.5%

Category 2 Towns
177
23.8%

Category 3 Towns
219
29.4%

SUSTAINABILITY CATEGORIES FOR RURAL MISSOURI TOWNS BASED ON OVERALL ASSESSMENT SCORES

		Town Count	Percent	Cumulative Percent
	Category 1 Towns	133	17.9	17.9
	Category 2 Towns	177	23.8	41.6
	Category 3 Towns	219	29.4	71.0
	Category 4 Towns	56	7.5	78.5
	Category 5 Towns	160	21.5	100.0
	Total	745	100.0	

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 1 Towns	1	Alba	-32.97
	2	Albany	-80.40
	3	Arbyrd	-30.81
	4	Ashburn	-26.68
	5	Ava	-45.80
	6	Blackwater	-31.02
	7	Blairstown	-27.90
	8	Blodgett	-29.22
	9	Bogard	-43.33
	10	Bosworth	-33.76
	11	Brandsville	-26.69
	12	Breckenridge	-39.18
	13	Browning	-50.89
	14	Bucklin	-42.82
	15	Bunker	-28.92
	16	Burlington Junction	-38.26
	17	Cainsville	-30.19
	18	Cairo	-26.85
	19	Carrollton	-35.52
	20	Caruthersville	-46.28
	21	Centertown	-48.08
	22	Chaffee	-52.50
	23	Chilhowee	-29.17
	24	Clarence	-31.64
	25	Clarksville	-37.14
	26	Clarkton	-47.22
	27	Cowgill	-32.20
	28	De Kalb	-27.29
	29	Dixon	-32.57
	30	Doolittle	-32.52
	31	Drexel	-56.59
	32	Dudley	-37.67

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
	33	Eagleville	-28.17
	34	East Prairie	-105.19
	35	Edina	-28.04
	36	El Dorado Springs	-60.24
	37	Eldon	-181.37
	38	Emerald Beach	-25.17
	39	Essex	-34.22
	40	Ethel	-26.68
	41	Farber	-40.95
	42	Fayette	-36.66
	43	Ferrelview	-53.20
	44	Forest City	-35.61
	45	Glen Allen	-43.98
	46	Grant City	-45.15
	47	Gravois Mills	-40.37
	48	Hale	-39.50
	49	Hamilton	-46.23
	50	Hardin	-50.65
	51	Harwood	-30.33
	52	Hayti	-113.49
	53	Hayti Heights	-32.93
	54	Henrietta	-56.90
Category 1 Towns	55	Hermann	-43.23
	56	Holden	-59.99
	57	Hopkins	-60.13
	58	Houstonia	-34.80
	59	Humphreys	-37.82
	60	Hurdland	-35.45
	61	La Grange	-42.11
	62	Laclede	-25.82
	63	Laddonia	-27.27
	64	Lake Annette	-31.92
	65	Lamar Heights	-28.65
	66	Lambert	-25.13
	67	Lathrop	-26.03
	68	Leawood	-41.05
	69	Lewistown	-40.04
	70	Lilbourn	-32.17
	71	Linneus	-36.99
	72	Louisiana	-72.49
	73	Lowry City	-49.54
	74	Ludlow	-38.62
	75	Macon	-75.27
	76	Malden	-245.51
	77	Mansfield	-49.15

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 1 Towns	78	Marceline	-90.29
	79	Marston	-64.05
	80	Mayview	-26.69
	81	Memphis	-34.08
	82	Milford	-27.36
	83	Mill Spring	-36.89
	84	Miller	-58.03
	85	Miner	-27.77
	86	Monroe City	-32.73
	87	Morehouse	-75.24
	88	Morley	-32.81
	89	Mount Leonard	-34.23
	90	Mount Moriah	-32.50
	91	Nevada	-45.21
	92	Northmoor	-28.03
	93	Orrick	-41.82
	94	Otterville	-36.42
	95	Paris	-75.26
	96	Parma	-71.04
	97	Parnell	-28.12
	98	Phillipsburg	-30.73
	99	Pierce City	-34.14
	100	Pineville	-37.38
	101	Platte Woods	-59.94
	102	Pollock	-25.99
	103	Polo	-52.74
	104	Potosi	-55.61
	105	Princeton	-29.37
	106	Puxico	-123.18
	107	Revere	-27.82
	108	Rich Hill	-30.44
	109	Ridgeway	-29.14
	110	Risco	-37.75
	111	Salisbury	-38.36
	112	Sarcoxie	-41.75
	113	Scott City	-49.81
	114	Senath	-30.53
	115	Shelbina	-58.79
	116	Slater	-59.82
	117	South Greenfield	-25.90
	118	Spickard	-26.33
	119	Stark City	-28.91
	120	Steele	-39.69
	121	Stockton	-100.31
	122	Sturgeon	-27.61

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 1 Towns	123	Tallapoosa	-28.69
	124	Tarkio	-89.99
	125	Trenton	-61.74
	126	Unionville	-91.44
	127	Verona	-60.42
	128	Versailles	-62.38
	129	Viburnum	-26.24
	130	Wellsville	-44.37
	131	Wheatland	-52.58
	132	Wilson City	-45.98
	133	Wyaconda	-28.13
Category 2 Towns	1	Adrian	-15.67
	2	Amity	-16.78
	3	Amoret	-16.07
	4	Annada	-20.34
	5	Anniston	-23.56
	6	Arkoe	-13.13
	7	Arrow Point	-13.75
	8	Arrow Rock	-22.67
	9	Asbury	-20.09
	10	Atlanta	-23.00
	11	Avilla	-14.24
	12	Bagnell	-10.74
	13	Baker	-11.68
	14	Bakersfield	-23.39
	15	Baldwin Park	-22.82
	16	Baring	-18.82
	17	Barnard	-21.53
	18	Barnhart CDP	-12.04
	19	Bell City	-19.52
	20	Benton City	-17.20
	21	Berger	-12.52
	22	Bigelow	-21.34
	23	Blythedale	-18.32
	24	Bragg City	-18.65
	25	Bronaugh	-18.53
	26	Brooklyn Heights	-13.02
	27	Brumley	-11.02
	28	Burgess	-11.34
	29	Caledonia	-12.87
	30	Canton	-21.64
	31	Cardwell	-10.50
	32	Catron	-14.24
	33	Centerview	-12.28
	34	Clark	-17.25

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 2 Towns	35	Clarksdale	-10.42
	36	Clearmont	-16.45
	37	Clifton Hill	-19.06
	38	Collins	-17.66
	39	Commerce	-12.29
	40	Coney Island	-22.16
	41	Corder	-17.63
	42	Corning	-12.50
	43	Cosby	-14.96
	44	Crystal Lakes	-23.22
	45	Curryville	-23.47
	46	De Witt	-16.37
	47	Deepwater	-22.19
	48	Denver	-11.21
	49	Des Arc	-13.11
	50	Diehlstadt	-16.00
	51	Downing	-11.47
	52	Dutchtown	-16.15
	53	Ellington	-12.86
	54	Elmer	-20.53
	55	Ewing	-11.26
	56	Fillmore	-12.25
	57	Fisk	-19.41
	58	Flemington	-11.01
	59	Florida	-11.88
	60	Foley	-10.23
	61	Fortescue	-20.18
	62	Foster	-17.16
	63	Frankford	-10.52
	64	Freistatt	-14.87
	65	Galt	-15.12
	66	Gasconade	-10.76
	67	Gentry	-19.75
	68	Gerster	-14.00
	69	Gibbs	-10.23
	70	Gilliam	-15.54
	71	Golden City	-12.85
	72	Granger	-11.44
	73	Greencastle	-11.04
	74	Guilford	-15.12
	75	Halltown	-15.78
	76	Harris	-16.49
	77	Hartsburg	-19.48
	78	Hoberg	-10.65
	79	Holland	-10.88

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 2 Towns	80	Homestown	-16.22
	81	Houston Lake	-18.74
	82	Hunnewell	-22.02
	83	Iatan	-22.32
	84	Irondale	-24.33
	85	Jacksonville	-18.99
	86	Jamestown	-15.91
	87	Jasper	-24.44
	88	Knox City	-14.63
	89	La Due	-18.45
	90	La Plata	-13.75
	91	La Russell	-22.73
	92	Lake Lafayette	-20.95
	93	Lake Ozark	-22.69
	94	Lakeside	-17.50
	95	Lanagan	-18.25
	96	Laredo	-16.13
	97	Leasburg	-10.55
	98	Lewis and Clark Village	-20.40
	99	Livonia	-21.17
	100	Lock Springs	-14.83
	101	Louisburg	-20.15
	102	Madison	-10.98
	103	Marquand	-14.22
	104	McCord Bend	-23.23
	105	McFall	-10.38
	106	Meadville	-13.76
	107	Mendon	-15.68
	108	Merwin	-18.85
	109	Metz	-13.68
	110	Mokane	-14.70
	111	Monticello	-24.84
	112	Mound City	-12.91
	113	Naylor	-13.52
	114	Neelyville	-21.41
	115	Nelson	-20.94
	116	New Cambria	-17.83
	117	Newtonia	-19.59
	118	Norborne	-14.94
	119	North Lilbourn	-23.60
	120	Novelty	-16.33
	121	Novinger	-22.11
	122	Old Appleton	-11.28
	123	Olympian Village	-16.47
	124	Oregon	-23.55

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
	125	Parkdale	-15.00
	126	Passaic	-13.31
	127	Paynesville	-11.01
	128	Penermon	-12.30
	129	Pinhook	-11.73
	130	Portageville	-24.20
	131	Powersville	-15.90
	132	Purdin	-13.00
	133	Ravenwood	-24.30
	134	Redings Mill	-16.80
	135	Renick	-22.29
	136	Rhineland	-19.43
	137	Richards	-10.58
	138	Ritchey	-14.07
	139	Rock Port	-21.28
	140	Roscoe	-11.49
	141	Rosebud	-17.26
	142	Rosendale	-19.30
	143	Rothville	-10.05
	144	Schell City	-18.84
	145	Shelbyville	-20.26
	146	Silex	-22.74
Category 2 Towns	147	South Gifford	-10.87
	148	South Gorin	-14.03
	149	South Lineville	-15.26
	150	St. Cloud	-13.13
	151	St. Thomas	-21.10
	152	Stanberry	-21.54
	153	Stella	-20.42
	154	Stotesbury	-16.72
	155	Stoutsville	-15.60
	156	Summersville	-24.59
	157	Sumner	-21.73
	158	Tarrants	-13.35
	159	Theodosia	-12.17
	160	Tina	-18.57
	161	Tracy	-13.28
	162	Triplett	-11.29
	163	Truxton	-16.15
	164	Turney	-13.74
	165	Tuscumbia	-10.02
	166	Umber View Heights	-12.28
	167	Utica	-22.28
	168	Van Buren	-11.82
	169	Vandiver	-10.44

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 2 Towns	170	Watson	-22.68
	171	Weatherby	-13.62
	172	West Line	-18.22
	173	Westboro	-13.80
	174	Wheaton	-20.11
	175	Williamsville	-24.18
	176	Wood Heights	-15.91
	177	Wyatt	-17.54
Category 3 Towns	1	Aldrich	-6.05
	2	Alexandria	-4.84
	3	Allenville	-2.74
	4	Alma	-3.13
	5	Altamont	-3.39
	6	Amsterdam	-3.95
	7	Annapolis	5.22
	8	Appleton City	-3.08
	9	Arbela	-8.11
	10	Arcola	-4.69
	11	Argyle	.92
	12	Armstrong	3.84
	13	Aullville	-5.51
	14	Barnett	6.85
	15	Bates City	-9.48
	16	Benton	-8.73
	17	Bernie	-7.37
	18	Bethel	-1.33
	19	Billings	-8.47
	20	Blackburn	-9.63
	21	Bloomsdale	9.37
	22	Blue Eye	2.39
	23	Bolckow	-7.00
	24	Braymer	-8.72
	25	Brimson	-3.89
	26	Brownington	-7.54
	27	Brunswick	3.63
	28	Bunceton	-6.94
	29	Calhoun	-4.98
	30	Callao	-1.45
	31	Camden	-9.54
	32	Camden Point	-4.90
	33	Canalou	-7.73
	34	Carytown	-9.24
	35	Cave	-4.60
	36	Cedar Hill Lakes	1.02
	37	Centertown	1.45

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
	38	Centerville	6.30
	39	Chain of Rocks	-.56
	40	Chain-O-Lakes	1.50
	41	Chamois	-2.65
	42	Chula	6.41
	43	Clarksburg	-9.64
	44	Cliff Village	7.36
	45	Climax Springs	4.60
	46	Clinton	5.10
	47	Clyde	-3.41
	48	Coffey	-3.45
	49	Conception Junction	-3.90
	50	Conway	2.94
	51	Cooter	-2.26
	52	Craig	-5.47
	53	Creighton	1.46
	54	Cross Timbers	1.18
	55	Cuba	-6.87
	56	Dadeville	3.68
	57	Dalton	-8.06
	58	Darlington	3.74
	59	Dearborn	-3.84
Category 3 Towns	60	Deerfield	-3.93
	61	Delta	-5.13
	62	Dennis Acres	3.85
	63	Diggins	-7.17
	64	Dover	-7.70
	65	Duenweg	-1.78
	66	East Lynne	2.47
	67	Easton	-2.57
	68	Edgerton	-.42
	69	Elmira	.13
	70	Elmo	-3.46
	71	Elsberry	8.04
	72	Eminence	2.24
	73	Everton	-5.53
	74	Fairfax	-3.65
	75	Fidelity	1.39
	76	Fleming	-6.07
	77	Fordland	-8.13
	78	Fountain N' Lakes	9.00
	79	Franklin	-5.32
	80	Freeburg	-7.87
	81	Freeman	3.75
	82	Galena	-3.57

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
	83	Gallatin	-5.98
	84	Gideon	.62
	85	Gilman City	-4.76
	86	Glasgow	6.98
	87	Glenwood	9.90
	88	Gordonville	-9.71
	89	Graham	-1.37
	90	Granby	1.22
	91	Grand Pass	-6.90
	92	Grandin	1.68
	93	Green City	9.21
	94	Greentop	-2.73
	95	Greenville	-6.06
	96	Gunn City	5.27
	97	Halfway	-4.74
	98	Haywood City	-6.67
	99	Higbee	-7.94
	100	High Hill	.14
	101	Highlandville	6.58
	102	Holcomb	-.99
	103	Holliday	-3.54
	104	Homestead	-8.75
Category 3 Towns	105	Hornersville	1.82
	106	Howardville	-3.44
	107	Hume	.11
	108	Huntsville	3.83
	109	Ionia	-9.87
	110	Irena	-7.93
	111	Ironton	-8.74
	112	Jameson	-6.01
	113	Jamesport	-4.93
	114	Jerico Springs	1.40
	115	Junction City	8.51
	116	Kahoka	-5.57
	117	Kelso	-4.27
	118	Keytesville	-4.67
	119	Kidder	-7.71
	120	Kimmswick	.87
	121	King City	-7.30
	122	Kingdom City	1.54
	123	Kingston	9.50
	124	Kingsville	2.14
	125	Koshkonong	3.96
	126	La Monte	-2.59
	127	Lamar	.03

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 3 Towns	128	Lancaster	7.27
	129	Leeton	-5.47
	130	Leonard	-4.87
	131	Linn Creek	7.30
	132	Lockwood	3.79
	133	Lohman	-2.44
	134	Longtown	3.76
	135	Lucerne	-7.30
	136	Lupus	-1.97
	137	Luray	1.87
	138	Macks Creek	9.56
	139	Maitland	1.29
	140	Malta Bend	-6.80
	141	Martinsburg	-2.98
	142	Maysville	-2.14
	143	McBaine	-6.39
	144	McKittrick	-8.21
	145	Mercer	-4.01
	146	Meta	-7.97
	147	Miami	-8.57
	148	Middletown	1.29
	149	Millard	-7.36
	150	Milo	-.49
	151	Mindenmines	-4.41
	152	Miramiguoa Park	2.60
	153	Montrose	5.19
	154	Mooresville	2.58
	155	Morrison	-5.46
	156	Moundville	-2.82
	157	Napoleon	-7.02
	158	Neck City	6.81
	159	New Bloomfield	-3.80
	160	New Hampton	-7.73
	161	New London	-5.08
	162	Newark	8.99
	163	Newtown	-9.57
	164	Niangua	9.53
	165	Oak Ridge	5.43
	166	Old Monroe	1.74
	167	Olean	7.95
	168	Osborn	-7.19
	169	Osceola	-9.99
	170	Osgood	-2.83
	171	Pascola	-8.78
	172	Pickering	-.39

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
	173	Pocahontas	-8.00
	174	Prairie Home	3.17
	175	Purcell	9.12
	176	Purdy	-9.63
	177	Quitman	-8.46
	178	Raymondville	-8.22
	179	Rea	-4.56
	180	Reeds	-5.73
	181	Rensselaer	5.77
	182	Richmond	1.19
	183	Ridgely	8.05
	184	Rives	-9.47
	185	Rocheport	-9.66
	186	Rockville	-7.66
	187	Rush Hill	-5.44
	188	Rushville	5.84
	189	Rutledge	6.99
	190	Seligman	5.88
	191	Sheridan	9.52
	192	Shoal Creek Drive	2.25
	193	Skidmore	-5.95
	194	Smithton	2.84
Category 3 Towns	195	Spokane CDP	-1.76
	196	St. Elizabeth	7.33
	197	Stotts City	-8.56
	198	Stoutland	7.32
	199	Strasburg	-5.53
	200	Sweet Springs	2.29
	201	Taneyville	4.29
	202	Tightwad	-9.34
	203	Tindall	-4.68
	204	Union Star	8.87
	205	Urbana	2.68
	206	Vista	-4.77
	207	Waco	-7.26
	208	Walker	8.84
	209	Washburn	-7.66
	210	Wayland	7.64
	211	Weaubleau	6.67
	212	Wentworth	-3.38
	213	Whiteside	4.66
	214	Whitewater	-3.57
	215	Windsor	-2.41
	216	Winston	-.86
	217	Wooldridge	-2.65

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 3 Towns	218	**Worthington**	**-.78**
	219	**Zalma**	**-6.48**
Category 4 Towns	1	**Advance**	**17.31**
	2	**Agency**	**22.19**
	3	**Airport Drive**	**12.23**
	4	**Altenburg**	**10.97**
	5	**Amazonia**	**24.19**
	6	**Arcadia**	**13.56**
	7	**Auxvasse**	**23.99**
	8	**Bellflower**	**13.20**
	9	**Bevier**	**15.64**
	10	**Big Lake**	**11.41**
	11	**Bland**	**19.13**
	12	**Brashear**	**22.25**
	13	**Brookfield**	**11.31**
	14	**Butler**	**11.61**
	15	**Butterfield**	**14.03**
	16	**Cabool**	**15.43**
	17	**Cobalt**	**14.78**
	18	**Diamond**	**24.85**
	19	**Edgar Springs**	**21.84**
	20	**Emma**	**20.87**
	21	**Fair Play**	**17.44**
	22	**Fairview**	**19.86**
	23	**Farley**	**13.92**
	24	**Frohna**	**17.76**
	25	**Grand Falls Plaza**	**21.10**
	26	**Hartville**	**10.52**
	27	**Hughesville**	**11.79**
	28	**Iron Mountain Lake**	**18.03**
	29	**Jonesburg**	**17.97**
	30	**La Belle**	**23.07**
	31	**Leslie**	**18.75**
	32	**Liberal**	**14.75**
	33	**Milan**	**17.65**
	34	**Mountain View**	**19.51**
	35	**New Florence**	**17.63**
	36	**New Franklin**	**15.45**
	37	**Oran**	**23.90**
	38	**Pattonsburg**	**11.87**
	39	**Pilot Knob**	**16.00**
	40	**Plattsburg**	**20.40**
	41	**Pleasant Hope**	**14.16**
	42	**Queen City**	**20.08**
	43	**Qulin**	**14.87**

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 4 Towns	44	Rayville	10.04
	45	Russellville	21.88
	46	Saginaw	12.75
	47	Sedgewickville	17.30
	48	Seneca	20.16
	49	Seymour	18.46
	50	Shoal Creek Estates	18.86
	51	Syracuse	12.03
	52	Urich	15.40
	53	Vanduser	13.72
	54	Waverly	23.83
	55	Wellington	21.96
	56	Willow Springs	14.21
Category 5 Towns	1	Alton	51.19
	2	Anderson	206.20
	3	Archie	102.12
	4	Ashland	671.47
	5	Aurora	162.82
	6	Belle	60.00
	7	Bertrand	33.45
	8	Bethany	118.63
	9	Birch Tree	36.30
	10	Bismarck	40.27
	11	Bloomfield	34.95
	12	Bonne Terre	872.68
	13	Boonville	77.57
	14	Bourbon	162.40
	15	Bowling Green	735.19
	16	Branson West	59.79
	17	Buffalo	130.95
	18	Bull Creek	117.54
	19	Byrnes Mill	101.72
	20	California	208.26
	21	Camdenton	351.80
	22	Cameron	632.95
	23	Campbell	63.93
	24	Carl Junction	730.37
	25	Carterville	33.72
	26	Cassville	183.32
	27	Centralia	113.71
	28	Charleston	311.94
	29	Chillicothe	211.97
	30	Cleveland	56.23
	31	Clever	348.01
	32	Cole Camp	157.32

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
	33	Concordia	90.45
	34	Country Club	269.89
	35	Crane	121.58
	36	Crocker	58.20
	37	Crystal City	334.92
	38	De Soto	207.28
	39	Desloge	137.28
	40	Dexter	237.86
	41	Doniphan	114.19
	42	Duquesne	90.44
	43	Ellsinore	39.13
	44	Eolia	30.38
	45	Exeter	84.10
	46	Forsyth	131.88
	47	Fredericktown	83.05
	48	Fremont Hills	126.49
	49	Gainesville	61.77
	50	Garden City	37.23
	51	Gerald	47.61
	52	Goodman	82.97
	53	Gower	88.29
	54	Green Ridge	30.74
Category 5 Towns	55	Greenfield	27.58
	56	Hallsville	214.17
	57	Harrisburg	27.34
	58	Hawk Point	68.28
	59	Herculaneum	184.52
	60	Hermitage	27.34
	61	Higginsville	161.64
	62	Hillsboro	454.37
	63	Hollister	217.79
	64	Holts Summit	247.13
	65	Houston	35.27
	66	Humansville	49.40
	67	Hurley	51.18
	68	Iberia	77.35
	69	Indian Point	95.40
	70	Innsbrook	58.56
	71	Kimberling City	133.74
	72	Knob Noster	36.63
	73	Lake Mykee Town	30.48
	74	Lake Waukomis	31.15
	75	Lake Winnebago	125.65
	76	Laurie	94.38
	77	Leadington	107.05

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
	78	Leadwood	26.14
	79	Lexington	126.28
	80	Licking	492.41
	81	Lincoln	60.00
	82	Linn	90.40
	83	Lithium	71.66
	84	Loma Linda	77.81
	85	Marble Hill	33.45
	86	Marionville	52.10
	87	Marshfield	196.82
	88	Marthasville	86.18
	89	Matthews	52.89
	90	Merriam Woods	284.32
	91	Mineral Point	34.07
	92	Monett	473.09
	93	Montgomery City	178.17
	94	Morrisville	27.11
	95	Moscow Mills	217.05
	96	Mount Vernon	130.38
	97	Mountain Grove	176.29
	98	New Haven	125.43
	99	New Madrid	58.20
Category 5 Towns	100	Newburg	26.11
	101	Noel	146.40
	102	Norwood	40.28
	103	Oak Grove	57.89
	104	Odessa	215.41
	105	Oronogo	436.62
	106	Osage Beach	311.65
	107	Owensville	120.30
	108	Pacific	542.07
	109	Palmyra	88.07
	110	Park Hills	328.69
	111	Parkville	547.90
	112	Parkway	70.36
	113	Peculiar	704.98
	114	Perry	31.13
	115	Perryville	225.04
	116	Pevely	624.71
	117	Piedmont	30.76
	118	Pilot Grove	43.08
	119	Platte City	340.74
	120	Pleasant Hill	782.20
	121	Reeds Spring	145.71
	122	Richland	30.88

RURAL MISSOURI TOWNS - OVERALL DECISION SCORES BY SUSTAINABILITY CATEGORY

		RURAL MISSOURI TOWN	OVERALL DECISION SCORE
Category 5 Towns	123	**Riverside**	**27.79**
	124	**Rockaway Beach**	**83.15**
	125	**Salem**	**60.22**
	126	**Savannah**	**160.83**
	127	**Scotsdale**	**35.88**
	128	**Sheldon**	**40.69**
	129	**Silver Creek**	**36.44**
	130	**Sparta**	**248.18**
	131	**St. Clair**	**94.93**
	132	**St. James**	**111.36**
	133	**St. Martins**	**81.60**
	134	**St. Robert**	**482.82**
	135	**Ste. Genevieve**	**65.20**
	136	**Steelville**	**51.29**
	137	**Stewartsville**	**25.84**
	138	**Stover**	**46.97**
	139	**Sullivan**	**274.02**
	140	**Sunrise Beach**	**43.56**
	141	**Taos**	**26.85**
	142	**Thayer**	**93.93**
	143	**Tipton**	**27.93**
	144	**Trimble**	**91.07**
	145	**Truesdale**	**124.00**
	146	**Vandalia**	**291.87**
	147	**Vienna**	**44.69**
	148	**Village of Four Seasons**	**223.16**
	149	**Wardell**	**40.68**
	150	**Wardsville**	**187.73**
	151	**Warrenton**	**946.17**
	152	**Warsaw**	**130.70**
	153	**Waynesville**	**470.74**
	154	**Weatherby Lake**	**111.15**
	155	**Weston**	**48.25**
	156	**Westphalia**	**46.85**
	157	**Wheeling**	**29.15**
	158	**Winfield**	**232.97**
	159	**Winona**	**49.50**
	160	**Wright City**	**493.88**

Phase II- Validation Report

Capability of the Rural Population Sustainability Assessment Tool
In Predicting Rural Missouri Community Population and Sustainability

The purpose of this report is to present validity evidence of the ability of the Rural Population Sustainability Assessment Tool in predicting population change in rural Missouri communities. The capability of the assessment tool is predicated on the validity of the factor inputs in predicting rural population change and is demonstrated through the review of previous rural population studies, as well as the statistical modeling analysis which established the factors with the greatest ability to predict population change in rural Missouri communities.

Review of Rural Population Studies
Forty-five statistically significant predictive factors were found in past studies of rural population change in the U.S. These factors included population changes based on age, migration patterns, natural increase/decrease, density, citizenship, education, and employment, as well as sources of income, poverty status, local and state tax burden, government employment and revenue streams, proximity to metropolitan areas, natural amenities and recreational opportunities. These factors showed substantial ability to predict population growth and decline in a variety of rural settings. Data sources for these factors included the U.S. Census Bureau, Bureau of Labor Statistics, and the Missouri Departments of Revenue, Economic Development, and Vital Statistics, and the Economic Research Service of the USDA. All of the studies reviewed used counties within states as the unit of analysis. This was necessary as county level data is the most complete over all rural regions of the U.S.

Statistical Analysis of the Predictive Factors
Although past studies found significant predictive power in these factors to determine rural population change across the U.S., equivalent predictive ability cannot be assumed for rural Missouri. To establish which factors would be valid predictors of population change in rural Missouri communities, a statistical analysis was conducted that included bivariate correlations of individual factors with overall population change and linear regression modeling to assess the collective ability of the factors to predict overall population change. The statistical analysis established which factors were valid predictors of population change in rural Missouri communities and candidates for inclusion in the assessment tool.

Correlation Analysis Results

Data for 745 rural towns and villages in Missouri were collected across a ten year span from 2000 to 2010. Incorporated rural Missouri towns and villages were the unit of analysis. Data was collected for forty-two relevant factors from U.S. Census, Missouri sources and the Economic Research Service-USDA. Change over a ten year period was computed for each predictive factor. Each individual factor was correlated with the change in overall population from 2000 to 2010 for each town and village. Thirty-two of the forty-two predictive factors showed statistically significant correlation coefficients at less than the .05 level. These factors included population by age, citizenship, migration, density, proximity to metropolitan areas, poverty status, and educational attainment, sources of personal income, natural amenities and employment by industry sector. The correlation analysis indicated which factors specifically impacted overall population change in rural Missouri towns and villages. Factors with significant correlations became candidates for inclusion in the statistical model to determine which factors would be valid predictors for input into the assessment tool.

Linear Regression Model

Correlation analysis, being bivariate in nature, measures the capability of an individual factor to change in overall population but it does so in isolation from the other factors. This is insufficient for determining their validity as inputs into the assessment tool. Validity must be established for the factors as a collection of inputs into the tool. Often, individual predictors may behave differently in the presence of other predictors. They can show differing degrees of impact on population change than they displayed in a bivariate correlation analysis. It is necessary to model the factors together to determine those that will collectively yield the greatest predictive power.

Regression analysis was used to determine the predictive power of the factors on population change by incorporating all factors into a model. Regression accomplishes this by analyzing the effect of each factor on overall population change while holding the other factors constant. As the assessment tool is designed to guide decisions based on prediction by a collection of factors, regression analysis aids in modeling all of the factors and their collective power to predict change in rural populations. Factors that yield statistically significant regression coefficients were considered to be valid predictors of population change and used as inputs into the assessment tool.

The regression model used the change in overall population from 2000 to 2010 as the dependent variable and the remaining factors were regressed using a forced entry method to measure their effect. The model yielded a high R^2 value (.923) indicating that the significant factors explained nearly 93 percent of the variation in overall rural population. The regression model yielded nineteen individual factors with statistically significant coefficients from the thirty-two factors loaded into the model. These nineteen factors are valid predictors of rural population change in Missouri and were incorporated into the assessment tool along with overall population change from 2000 to 2010. They include:

1. Change in the population group aged 18 to 29 years from 2000 to 2010.
2. Change in the population group aged 50 and over from 2000 to 2010.
3. Change in the number of persons employed in construction from 2000 to 2010.
4. Change in the number of public assistance income recipients from 2000 to 2010.
5. Change in the number of bachelor's or higher degree recipients from 2000 to 2010.
6. Change in the number of persons employed in entertainment, recreation and food service from 2000 to 2010.
7. Change in the number of retirement income recipients from 2000 to 2010.
8. Change in the number of Social Security income recipients from 2000 to 2010.
9. Change in the number of persons employed in professional services, scientific and management from 2000 to 2010.
10. Change in the number of high school graduates from 2000 to 2010.
11. Change in the number of persons employed in manufacturing from 2000 to 2010.
12. Change in the number of persons employed in finance, insurance and real estate from 2000 to 2010.
13. Change in the number of persons employed in wholesale trade from 2000 to 2010.
14. Change in the number of persons employed in information technologies from 2000 to 2010.
15. Change in population density (per square mile) from 2000 to 2010.
16. Natural Amenity Scale Rank (1=Low, 7=High).
17. Change in the number of rural immigrants from 2000 to 2010.
18. Change in the number of persons migrating into the town or village from 2006 to 2010.
19. Change in the number of persons employed in retail trade from 2000 to 2010.

A stepwise regression model was then applied to the above factors to establish a hierarchy of the significant factors for developing a weighting scheme for the predictive factors. Stepwise regression loads factors one at a time based on their ability to maximize the R^2 value for the model. Factors continue to be loaded into the model until the R^2 value can no longer be increased. Non-significant factors are excluded from the model. Weighting values were applied to each significant factor according to their contribution to the R^2 value for the model.

The review of past rural population studies and the subsequent statistical analysis has established a set of valid predictors of population change for rural Missouri towns and villages. It is those predictors that have been incorporated into the assessment tool and serve as the basis for generating the weighted factor scores and the overall weighted scores for rural Missouri communities.

Accuracy of the Rural Population Sustainability Assessment Tool
The assessment tool has been tested extensively for its accuracy in computing weighted factors from the original factor data. Data for rural Missouri towns is obtained from U.S. Census, Economic Research Service-USDA and Missouri sources and cross-checked and verified for accuracy. All computations used to convert the Census data to standardized scores has been verified as accurate and matched against standardized scores generated in SPSS Statistical Software. All weighting of factor computations is also verified as accurate by matching against the same computations generated in SPSS Statistical Software. Finally, computation of the weighted factor scores and the overall weighted scores has been verified as accurate through testing of approximately 75 randomly selected towns from the 745 rural towns in Missouri.

These steps have been taken to ensure the validity of the inputs into the assessment tool and the accuracy of the computations in the tool that generate the weighted factor scores and the overall weighted scores for each rural town and village in Missouri.